WHAT IS CLAIMED IS:

1. A tracing method, comprising:

executing a program that includes a plurality of instructions, said plurality of instructions including one or more user trace data commands, wherein a user trace data command instructs a processor to write user trace data to a user trace data register,

detecting a write to at least part of said user trace data register; and

in response to said detected write, generating a trace record that includes at least part of the user trace data in said user trace data register.

- 2. The method of claim 1, further comprising outputting said trace record to a trace capture component.
- 3. The method of claim 2, further comprising outputting a trace record indication, said trace record indication identifying said outputted trace record as containing user trace data.
- 4. The method of claim 1, wherein said user trace data register includes a general processor register value.
- 5. The method of claim 1, wherein said user trace data register includes a program variable value.

- 6. The method of claim 1, wherein said user trace data register includes debugrelated information that is observable during program execution.
- 7. The method of claim 1, wherein said user trace data command is included in said program prior to execution.
 - 8. A tracing system, comprising:

a user trace data register that stores user trace data upon execution of a user trace data command included among a plurality of instructions; and

trace generation logic that detects a write to at least part of said user trace data register and generates a trace record that includes at least part of the user trace data in said user trace data register.

- 9. The tracing system of claim 8, wherein said trace generation logic outputs said trace record to a trace capture component.
- 10. The tracing system of claim 9, wherein said trace generation logic further outputs a trace record indication to said trace capture component, said trace record indication identifying said output trace record as containing user trace data.
- 11. The tracing system of claim 8, wherein said user trace data register includes a general processor register value.

- 12. The tracing system of claim 8, wherein said user trace data register includes a program variable value.
- 13. The tracing system of claim 8, wherein said user trace data register includes debug-related information that is observable during program execution.
- 14. The tracing system of claim 8, wherein said user trace data command is included in said program prior to execution.
 - 15. A computer program product comprising:

computer-readable program code for causing a computer to describe a user trace data register that stores user trace data upon execution of a user trace data command included among a plurality of instructions; and

computer-readable program code for causing a computer to describe a trace generation logic that detects a write to at least part of said user trace data register and generates a trace record that includes at least part of the user trace data in said user trace data register; and

a computer-usable medium configured to store the computer-readable program codes.

16. A method for enabling a computer to generate a tracing system, comprising:

transmitting computer-readable program code to a computer, said computer-readable program code including:

computer-readable program code for causing a computer to describe a user trace data register that stores user trace data upon execution of a user trace data command included among a plurality of instructions; and

computer-readable program code for causing a computer to describe a trace generation logic that detects a write to at least part of said user trace data register and generates a trace record that includes at least part of the user trace data in said user trace data register.

- 17. The method of claim 15, wherein computer-readable program code is transmitted to said computer over the Internet.
 - 18. A computer data signal embodied in a transmission medium comprising:

computer-readable program code for causing a computer to describe a user trace data register that stores user trace data upon execution of a user trace data command included among a plurality of instructions; and

computer-readable program code for causing a computer to describe a trace generation logic that detects a write to at least part of said user trace data register and generates a trace record that includes at least part of the user trace data in said user trace data register.